

Having thus described my invention, I claim:

1. A traffic control system for a traffic congestion zone, including:  
a traffic event sensing system;  
a traffic spacing system activated when said traffic event sensing system detects a first criteria;  
said traffic spacing system including a plurality of vehicle speed regulation devices;  
wherein at least a first of said plurality of vehicle speed regulating devices has a lower vehicle speed limit than a second of said plurality of vehicle speed regulating devices, said first speed regulating device is behind said second speed regulating device in said traffic congestion zone,  
whereby at least two vehicles controlled by said first and second in said congestion zone are spaced apart as they move forward in said traffic congestion zone.
2. The traffic control system as recited in claim 1, wherein said first criteria is the speed of a vehicle located near the exit of said traffic congestion zone.
3. The traffic control system as recited in claim 2, wherein said speed of a vehicle is stopped.
4. The traffic control system as recited in claim 2, wherein said speed of a vehicle is measured over a period of time.
5. The traffic control system as recited in claim 2, wherein said event detector is located on said roadway.

6. The traffic control system as recited in claim 2, wherein said event detector is a RADAR.
7. The traffic control system as recited in claim 2 wherein said event detector is located in multiple lanes.
8. The traffic control system as recited in claim 1, wherein said traffic congestion zone is divided into at least 3 speed control regions.
9. The traffic control system as recited in claim 8, wherein each speed control region has an associated one of said plurality of vehicle speed regulation devices.
10. The traffic control system as recited in claim 9, wherein at least one speed regulation device includes at least one transponder.
11. The traffic control system as recited in claim 1, wherein at least one speed regulation device includes at least one transponder.
12. The traffic control system as recited in claim 1, wherein at least one speed regulation device includes at least one broadcast device located along a roadway.
13. The traffic control system as recited in claim 12, wherein at least one regulation device includes a receiver.
14. A traffic flow control system for controlling traffic flow in a speed control zone including:

an event detection device being for detecting an event causing traffic congestion;  
a plurality of spacers being for spacing cars to reduce congestion in said control zone, including said mechanical or electronic movement support;  
a control system for controlling the velocity of each of said plurality of spacers; and  
one or more space determination devices being for determining the spacing between one or more vehicles.

15. A traffic control system for use in reducing traffic congestion including:

a plurality of velocity control units, each of said plurality of control units including

a reception unit and a transmission unit, wherein a plurality of said reception units may be controlled by one of said transmission units;

each of said plurality of reception units operatively coupled with a vehicle's acceleration system;

wherein at least a portion of said velocity control units are activated when a speed detection device detects that a vehicle has reached a low threshold speed.

16. The traffic control system as recited in claim 15, wherein said reception unit includes an ID that can be read by said transmission unit.

17. The traffic control system as recited in claim 15, wherein said plurality of transmission units transmits an electromagnetic signal to a corresponding reception unit, said transmission signal including a speed limit.

18. The traffic control system as recited in claim 15, wherein said reception unit are activated by a transmitter at an entrance to a traffic congestion reduction zone.
19. The traffic control system as recited in claim 18, wherein said entrance to said congestion reduction zone is regulated by an entrance criteria detection device.
20. The traffic control system as recited in claim 19, wherein said entrance criteria detection device is capable of detecting an account held by a driver in a vehicle by transmitting a signal and reading a transponder.
21. The traffic control system as recited in claim 20, wherein said driver must have an account in good standing to enter said congestion reduction zone.
22. The traffic control system as recited in claim 19, wherein said entrance criteria detection device is capable of detecting multiple passkeys located in said vehicle.
23. The traffic control system as recited in claim 22, multiple passkeys must be present for said vehicle to enter said congestion reduction zone.
24. The traffic control system as recited in claim 19, wherein said entrance criteria detection device is capable of detecting multiple passkeys located in said vehicle, wherein said multiple passkeys correspond to multiple subscribers.

25. The traffic control system as recited in claim 24, wherein said congestion reduction zone may only be accessed by vehicles with multiple passengers.

26. The traffic control system as recited in claim 18, wherein said entrance criteria detection device is only active during traffic congestion hours.

27. A method for reducing traffic congestion in a traffic congestion area including the steps of:

detecting an event causing a traffic congestion;

detecting an initial distance between at least a first two vehicles in a plurality of control zones;

causing said initial distance to increase by limiting the acceleration of at least one vehicle in at least one of said plurality of zones;

detecting an intermediate distance between at least a second two vehicle in said plurality of control zones;

causing said intermediate distance to increase if said intermediate distance is not within a target; and

detecting an end to said traffic congestion if a target distance is detected between two vehicles in one of said plurality of control zones.

28. The method as recited in claim 27, wherein said initial distance is detected by speed strips.

29. The method as recited in claim 27, wherein said initial distance is detected by RADAR.

30. The method as recited in claim 27, further including the act of measuring said velocity of said first two vehicles nearly simultaneous to measuring said initial distance.
31. The method as recited in claim 30, including the act of measuring said velocity of said second two vehicles nearly simultaneous to measuring said intermediate distance.
32. The method recited in claim 27, wherein said limiting of acceleration is caused by mechanical means.
33. The method recited in claim 27, wherein said limiting of acceleration is caused by an RFID acceleration control system.
34. The method as recited in claim 27, wherein said limiting of acceleration is controlled by a device that includes broadcast devices located along a roadway.
35. The method as recited in claim 34, wherein said limiting of acceleration is received in the vehicle by an acceleration governor.
36. The method as recited in claim 35, wherein said acceleration governor includes a reception device.
37. The method as recited in claim 36, wherein said reception device accepts EM signals from said broadcast device located along said roadway.
38. The method as recited in claim 36, wherein said reception device includes an RFID that can be read by a transponder.
39. The method as recited in claim 36, wherein said reception device is

40. The method as recited in claim 27, wherein said acceleration limit is computed by said initial distance and said velocity of said first two cars.
41. The method as recited in claim 27, wherein any vehicle in said plurality of control zones may be prevented from accelerating by an acceleration limiting device.
42. The method as recited in claim 41, wherein a portion of said acceleration limiting device is located inside a vehicle and operative coupled such that it can limit the speed of said vehicle.
43. The method as recited in claim 27, wherein said causing said initial distance to increase step includes the act of receiving information from one or more units corresponding to a speed of at least one leading vehicle located ahead of said at least one vehicle.
44. The method as recited in claim 43, wherein said information is received by EMF transmission.
45. The method as recited in claim 43, wherein said information is received through a LAN network.
46. The method as recited in claim 43, wherein said causing initial distance step further includes calculating a target distance by processing said information from one or more units before transmitting said acceleration limit information, said acceleration limit always corresponding to a speed less than said speed information received from a forward unit.
47. The method as recited in claim 46, wherein said information is from a plurality of forward units.

48. The method as recited in claim 47, where said information is weighted such that the speed information from the forwardmost unit receives the least weight in determining said acceleration limit.
49. The method as recited in claim 27, wherein said acceleration limiting may only limit positive acceleration.
50. The method as recited in claim 49, wherein said acceleration limiting step may only occur if a speed of one of said vehicles has reached a low threshold.
51. The method as recited in claim 50, wherein said low threshold speed is zero.
52. The method as recited in claim 50, wherein said low threshold speed is determined based on said initial distance.
53. The method as recited in claim 50, wherein said low threshold speed is determined based on said intermediate distance.
54. The method as recited in claim 50, wherein if said vehicle speed exceeds said low threshold and subsequently decreases below said low threshold, said low threshold may be adjusted.
55. A subscription traffic control region, wherein a set of subscribers are exclusively allowed to enter said traffic control region based upon meeting a criteria, said traffic control region being a at least one lane stretching a length of roadway including:
  - a traffic congestion zone located in said subscription roadway, said traffic congestion zone including:



a plurality of vehicle speed limitation zones, each of said speed limitation zones including a transmission device for sending a signal to a reception device located in a vehicle, said reception device for receiving instructions to limit positive acceleration;

said traffic control region further including an entry access system, said entry access system being for detecting if said criteria is met.

56. The traffic control region as recited in claim 55, wherein said criteria includes the presence of said reception device.

57. The traffic control region as recited in claim 55, wherein said criteria includes multiple occupants in a vehicle.

58. The traffic control region as recited in claim 57, wherein each of said multiple occupants of a vehicle must have a device capable of being detected by said entry access system.

59. The traffic control region as recited in claim 55, wherein said criteria includes an occupant of a vehicle having an account in good standing.

60. A system for reducing traffic congestion in which a plurality of transmission devices in a congestion reduction area send signals to speed limitation reception devices located in a plurality of vehicles, each of said reception devices configured to limit the positive acceleration of each of a plurality of vehicles.

61. The system recited in claim 60, wherein said signals limiting the positive acceleration such that the speed of the forward vehicle any two of said plurality of vehicles is greater than the reverse vehicle.

62. The system as recited in claim 61, wherein said signals are only transmitted is the speed of one of said plurality of vehicle is detected to reach a low threshold.

63. The system as recited in claim 62, wherein said low threshold speed is zero.

64. The system as recited in claim 61, wherein said plurality of transmission devices are each connected to at least one other transmission device.

65. The system as recited in claim 64, wherein said plurality of transmission devices are connected to all other of said transmission devices located in a portion of said congestion reduction area.

66. The system as recited in claim 65, wherein said plurality of transmission devices are connection to all other of said transmission devices located in said congestion reduction area.

67. The system as recited in claim 61, wherein each of said transmission devices include a acceleration limiting computation device.

68. The system as recited in claim 61, wherein each of said transmission devices is connected to an acceleration limiting computation device.

69. The system as recited in claim 60, wherein said transmission device reads an ID located in said vehicle.

70. The system as recited in claim 69, wherein said ID is located in said reception device.

71. The system as recited in claim 69, wherein said ID is shared by said plurality of transmission devices in limiting the acceleration of said vehicle.

72. A device for assisting the control of traffic congestion including:

a non-negative acceleration governor operatively coupled to a vehicle acceleration capability; and

an activation device coupled to said non-negative acceleration governor.

73. A device for assisting the control of traffic congestion including:

a non-negative acceleration governor operatively coupled to a vehicle acceleration capability, wherein said non-negative acceleration governor cannot limit the positive acceleration of said vehicle unless the speed of a vehicle reaches a low threshold; and

an activation device coupled to said non-negative acceleration governor, wherein said non-negative acceleration governor.

74. The device as recited in claim 73 further comprising a distance detection device in said activation unit, said distance detection device being for detecting a distance between two vehicles.

75. The device as recited in claim 74, where said activation unit activates said non-negative acceleration unit when a threshold distance is detected.

76. The device as recited in claim 73, wherein said low threshold speed is zero.

77. The device as recited in claim 73, further including a receiver operatively coupled to said activation device.

78. The device as recited in claim 77, wherein said receiver is configured to receive EMF signals corresponding to a non-negative acceleration limit, said activation device translating said EMF signals and providing them to said non-negative acceleration governor

79. A method for reducing traffic congestion including the acts of:

placing an acceleration limiting reception device in each of a plurality of vehicles;

activating at least one of said plurality acceleration limiting reception devices in a congestion reduction zone; and

transmitting instructions to at least one of said plurality of acceleration limiting reception devices in at least one vehicle located in said congestion reduction zone,

wherein said transmitted instruction cause the non-negative acceleration of a vehicle to be limited.

80. The traffic congestion reduction method as recited in claim 79, wherein said activation takes place when a traffic event is detected.

81. The traffic congestion reduction method as recited in claim 79, further including the step of deactivating said at least one of said plurality of acceleration limiting device.

82. The traffic congestion reduction method as recited in claim 79, wherein said transmitter is located at the base on an on-ramp, such that a vehicle may not enter a highway until instructions are transmitted to said acceleration limited reception device.

83. A method for controlling the flow of traffic in a highway merge area including the acts of:

placing an acceleration limiting reception device in each of a plurality of vehicles;

activating at least one of said plurality acceleration limiting reception devices in a merge congestion zone, wherein said merge congestion zone includes at least a stretch of an on-ramp and a portion of a travel lane prior to its connection to said merge ; and

transmitting instructions to at least one of said plurality of acceleration limiting reception devices in at least one vehicle in said travel lane and one merging vehicle located in said stretch of on-ramp, located in said merge congestion zone

transmitting instructions to at least one of said plurality of acceleration limiting reception devices in at least one vehicle and said one merging vehicle located in said merge congestion zone,

wherein said transmitted instructions cause the non-negative acceleration of vehicle to be limited.